

Khilov, K. L.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 5 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Khilov, K. L.	"The Cerebral Cortex and Functions of the Vestibular Analyzer"	Leningrad Medical Institute of Sanitation and Hygiene

SO: W-30654, 7 July 1954

KHILOV, K. L.; FELISTOVICH, G. I.; LAZAROV, N. V.; BEYER, V. A.

"Pentoxyl and Its Use in Diseases Accompanied by Leukopenia," Sov. Med., No. 2,  
pp 34-36, 1953.

Translation M-755, 30 Aug 55

Clinical tests reveal that pentoxyl is therapeutically valuable drug. It is conducive to formation of leukocytes and particularly of granulocytes in animals suffering from leukopenia. Pentoxyl is a white, cryst powder, bitter in taste and slightly irritating to the mucous membrane of the mouth. This preparation offers great encouragement when used in combination with penicillin. Pentoxyl produced no positive results in acute leukosis or in aplastic anemia. In 1951, the pharmacol committee of the Sci. Med. Council of the Min. Public Health USSR authorized the chemicopharmaceutical industry to manufacture pentoxyl.

247732

LAZAREV, N.V., professor, zaslushenny deyatel' nauki RSFSR; FELISTOVICH, G.I.;  
KHILOV, K.L., professor, zaslushenny deyatel' nauki; UL'YANOVA, L.S.;  
GERSHANOVICH, M.L.; VYSHEGORODTSEVA, V.D., professor; BRUSILOVSKAYA,  
A.I., dotsent.

Conference on pentoxyl therapy in agranulocytosis. Farm. i toks 16 no.1:  
62-63 Ja-F '53. (MLRA 6:6)

1. Voenno-morskaya meditsinskaya akademiya (for Lazarev and Gershanovich).
2. Toksikologicheskaya laboratoriya Instituta gigiyeny truda i profes-  
sional'nykh zabolevaniy, Leningrad (for Felistovich).
3. Leningradskiy  
sanitarno-gigiyenicheskiy institut (for Khilov).
4. Klinika Instituta gi-  
giieny truda i professional'nykh zabolevaniy, Leningrad (for Ul'yanova).  
(Agranulocytosis) (Pentoxyl)

On the basis of clinical observations (which are still scarce at  
this time) one may conclude that pentoxyl is a powerful stimulant of  
leucopoiesis (particularly of neutrophilopoiesis) and that it is a very  
effective therapeutic agent for the treatment of agranulocytic anginas of  
unknown etiology. 254T21

BEYER, V.A.; LAZAREV, N.V.; FELISTOVICH, G.I.; KHILOV, I.L.

Pentoxyl therapy of diseases causing leukopenia. Sovet. med. 17  
no.2:35-36 Feb 1953. (CLML 24:2)

1. Professor for Beyer; Honored Worker in Science and Professor  
for Lazarev and Khilov. 2. Leningrad.

*KHILOV X.L.*  
BASHENIN, V.A., professor, dotsent; VYSHEGORODTSEVA, V.D., professor, dotsent;  
KLIONSKIY, Ye.Ye.; PETROV-MASLAKOV, M.A., professor, dotsent; PISAREV,  
V.N., professor, dotsent; PROZOROV, V.A., professor, dotsent; SOZON-  
YAROSHEVICH, A.Ye., zasluzhennyy deyatel' nauki; TAL'MAN, I.M., pro-  
fessor, dotsent; TIKHOMIROV, P.Ye., professor dotsent; TROITSKAYA,  
A.D., professor dotsent; KHILOV, K.L., professor dotsent; ZEBOL'D,  
A.N., redaktor. RULEVA, M.S., tekhnicheskiiy redaktor

[Handbook for feldshers in health and first-aid stations of industrial  
enterprises] Posobie dlia fel'dsherov zdravpunktov promyshlennykh  
predpriatii. [Leningrad] Gos. izd-vo med. lit-ry, Leningradskoe  
otd-nie, 1954. 271 p. (MLRA 7:10)

(Medicine, Industrial)

(First aid in illness and injury)

KHILOV, K.L.

MIN'KOVSKIY, A.Kh.

Review of "Cerebral cortex and functions of the vestibular  
analysor," a book of the honored scientist [professor, zas-  
luzhennyy deyatel' nauki] K.L.Khilov. Vest.oto-rin. 16 no.1:  
86-89 Ja-F '54. (MLRA 7:3)  
(Cerebral cortex) (Labyrinth (Ear)) (Khilov, K.L.)

KHILOV, K.L., professor.

"Clinical otoneurology." G.S.Tsimmerman, Reviewed by K.L.Khilov.  
Vest. oto-rin. 16 no.5:84-87 5-0 '54. (MLBA 7:12)

(EAR--DISEASES)  
(TSIMMERMAN, G.S.)

EXCERPTA MEDICA Sec.11 Vol.10/6 Oto-Rhino-Laryngo Jun 57

KHILOV K. L.

1095. KHILOV K. L. Med. Inst. of Publ. Hlth and Hyg., Leningrad. \* The pathogenesis of otosclerosis (Russian text) VESTN. OTORINO-LARING. 1955, 5 (3-8)

Electrophysiological examinations in animal experiments (with the experimental type of otosclerosis) have shown a state of the increased activity of the cerebral cortex with absence of the labyrinthine oscillations and reaction to sound. It is assumed that in patients with chronic impairment of the sound impressions, reaching the labyrinth and the cerebral cortex, there is initially a state of enhanced sensitivity of the auditory cerebral cortex, followed later by inhibition. The participation of the cerebral cortex in the mechanism of hearing is demonstrated by



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the deterioration of hearing in these patients in emotional states. The experiments, carried out on 6 rats, without decortication demonstrated the development of the typical degenerative changes in the spiral ganglion and in the organ of Corti, as well as the development of the connective tissue in the scala tympani and the ductus cochlearis, under the influence of prolonged and strong stimulation. In 6 decorticated rats, the development of the degenerative changes in the spiral ganglion and in the organ of Corti was less obvious and there were no changes in the cochlea. It seems that for the development of the trophic changes in the labyrinth, the functioning cerebral cortex is essential. It is concluded that the otosclerosis is the sequel to disturbed trophic functions of the cerebral cortex. The clinical observations of the author and his co-workers have shown that the striking improvement of the hearing in the operated and in the opposite ear, following fenestration of the labyrinth, occurs in patients in whom before operation there is predominance of the inhibitory processes in the auditory cortex. Bibliography.

Preobrazhenski - Moscow

KHILOV, K.L., professor, zaslužennyi deyatel' nauki.

"Diseases of the ear, nose, and throat". B.S. Preobrazhenskii, I.A.S.  
Temkin, A.G. Likhachev. Reviewed by K.L. Khilov. Vest. oto-rin.  
17 no.6:71-74 H-D '55. (MLRA 9:2)

(OTORHINOLARYNGOLOGY) (PREOBRAZHENSKII, B.S.)

KHILOV, K.L., zasluzhennyi deyatel' nauki, professor

"Surgical treatment of defective hearing in otosclerosis." A.A.  
Atkarskaia. Reviewed by K.L.Khilov. Vest.oto-rin. 18 no.5:64-67  
S-O '56. (MLRA 9:11)  
(MAR--SURGERY) (OTOSCLEROSIS) (ATKARSKAIA, A.A.)

KHILOV, K.L.

[Otosclerosis] Otoskleroz. Leningrad. Medgiz, 1958. 123 p.  
(OTOSCLEROSIS) (MIRA 11:9)

KHILOV, K.L., prof.; SHCHERBATOV, I.I., prof.

International Congress of Otorhinolaryngologists in the U.S.A.  
Vest.oto-rin. 20 no.1:124-130 Ja-F '58. (MIRA 11:3)  
(WASHINGTON, D.C.--OTORHINOLARYNGOLOGY--CONGRESSES)

KHILOV, K.L.

AGGEYEV, P.K., prof.; ANDREYEVA-GALANINA, Ye.TS., prof.; BASHENIN, V.A.,  
prof.; BERNENSON, M.Ye., doktor med.nauk; VYSHEGORODTSEVA, V.D.,  
prof.; GESSEN, A.I., dotsent; GUTKIN, A.Ye., prof.; ZHDANOV, D.A.,  
prof., laureat Stalinskoy premii; ZNAMENSKIY, V.F., prof.;  
KLIONSKIY, Ye.Ye., prof.; MONASTYRSKAYA, B.I., prof.; MOSKVIN,  
I.A., prof.; MUCHNIK, L.S., kand.med.nauk; PETROV-MASLAKOV, M.A.,  
prof.; RUBINOV, I.S., prof.; RYSS, S.M., prof.; SMIRNOV, A.V.,  
prof., zasluzhennyy deyatel' nauki; TIKHOMIROV, P.Ye., prof.;  
TROITSKAYA, A.D., prof.; UDINTSEV, G.N., prof.; UFLYAND, Yu.M.,  
prof.; FEDOROV, V.K., prof.; KHILOV, K.L., prof., zasluzhennyy  
deyatel' nauki; VADKOVSKAYA, Yu.V., prof.; MARSHAK, M.S., prof.;  
PETROV, M.A., kand.med.nauk; POSTNIKOVA, V.M., kand.med.nauk;  
RAPOPORT, K.A., kand.biolog.nauk; ROZENTUL, M.A., prof.; YANKE-  
LEVICH, Ye.I., kand.med.nauk; LYUDKOVSKAYA, N.I., tekhn.red.

[Book on health] Kniga o zdorov'e. Moskva, Gos.izd-vo med.lit-ry,  
Medgiz, 1959. 446 p. (MIRA 12:12)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for  
Zhanov, Udintsev). 2. Leningradskiy sanitarno-gigiyenicheskiy me-  
ditsinskiy institut (for all, except Vadkovskaya, Marshak, Petrov,  
Postnikova, Rapoport, Rozentul, Yankelevich, Lyudkovskaya).  
(HYGIENE)

KHILOV, K.L., prof., zasluzhennyy deyatel' nauki; YERMOLAYEV, V.G., prof.;  
VOSKRESENSKIY, V.P., kand.med.nauk

In memory of Professor Nikolai Aleksandrovich Pautov. Vest.  
otorin. 21 no.3:114-115 My-Je '59. (MIRA 12:9)  
(OBITUARIES

Pautov, Nikolai A. (Rus))

LOPOTKO, I.A.; UNDRITS, V.F.; PREOBRAZHENSKIY, B.S.; KHILOV, K.L.; LIKHACHEV,  
A.G.; SENDUL'SKIY, I.Ya.; MIL'SHTEYN, T.N.; GRINBERG, G.I.; ROMM, S.Z.

Basic problems in Soviet otorhinolaryngology; on the 1960 working  
plan for research in the Academy of Medical Sciences of the U.S.S.R.  
Vest.otorin. 21 no.5:3-14 S-O '59. (MIRA 13:1)  
(OTORHINOLARYNGOLOGY)



UDRITS, Vil'gel'm Fomich; ~~KHILOV, K.L.~~; LOZANOV, N.N.; SUPRUNOV, V.K.;  
ORLOV, R.S., red.; RULEBA, M.S., tekhn. red.

[Diseases of the ear, throat, and nose; concise manual for  
physicians] Bolezni ukha, nosa i gorla; kratkoe rukovodstvo  
dlia vrachei. Leningrad, Gos. izd-vo med. lit-ry Medgiz,  
Leningr. otd-nie, 1960. 559 p. (MIRA 14:9)  
(OTOLARYNGOLOGY)

KHILOV, K.L., nasluzhennyi deyatel' nauki prof. (Leningrad)

New modification in tympanoplasty. Zhur. ush., nos. 1 gorl. bol.  
20 no.5:8-11 8-0 '60. (MIRA 14:6)  
(TYMPANIC MEMBRANE SURGERY)

KHILOV, K.L., zasluzhennyy deyatel' nauki prof.; ZAKHAROVA, O.F.; BELOV, I.M.

Asymmetry of hearing in the prognosis of fenestration of the labyrinth  
in otosclerosis. Zhur. ush., nos. 1 gorl. bol. 20 no.6:49-53 N-D '60.  
(MIRA 15:2)

1. Kafedra bolezney ukha, gorla i nosa Voenno-meditsinskoy ordena  
Lenina akademii imeni S.M.Kirova  
(LABYRINTH (EAR) SURGERY) (OTOSCLEROSIS)

KHILOV, K.L., zasluzhennyy deyatel' nauki, prof. (Leningrad)

Functional prognosis of the surgical treatment of otosclerosis.  
Zhur. ush., nos. 1 gorl. bol. 20 no. 6:7-12 N-D '60. (MIRA 15:2)  
(EAR SURGERY) (OTOSCLEROSIS)

LOPOTKO, I.A.; UNDRITS, V.F.; PREOBRAZHENSKIY, B.S.; KHILOV, K.L.;  
SENDUL'SKIY, I.Ya.; LIKHACHEV, A.G.; MIL'SHEIN, T.N.;  
GRINBERG, G.I.; ROMM, S.Z. (Leningrad - Moskva)

Most important problems in Soviet otorhinolaryngology; on the  
research plan for the field of otorhinolaryngology during 1961-  
1962, according to the Academy of Medical Sciences of the U.S.S.R.  
Vest.otorin. 22 no.5:3-24 S-0 '60. (MIRA 13:11)  
(OTOLARYNGOLOGY)

KHILOV, K. L.  
KHILOFF, K. L.

"The problem of the functional prognosis after operation  
on the labyrinth in cases of otosclerosis."

report submitted for the Seventh Intl. Congress of Otorhinolaryngology,  
Paris, 23-29 July 1961

Leningrad, USSR

VOYACHEK, V. I.; KHILOV, K. L.; LIKHACHEV, A. G.; FIGULEVSKIY, D. A.

Professor Vil'gel'm Fomich Undrits; on the 70th anniversary of  
his birth. Vest. otorin. no.1:3-6 '62. (MIRA 15:7)

(UNDRITS, VIL'GEL'M FOMICH, 1891-)

KHILOV, Konstantin L'vovich; PREOBRAZHENSKIY, Nikolay Aleksandrovich;  
IVANOV, N.I., red.

[Otosclerosis] Otoskleroz. Izd.2., ispr. 1 dop. Leningrad,  
Meditsina, 1965. 237 p. (MIRA 18:2)



L 43979-66 EWT(1)/FSS-2 DD

ACC NR: AP6029423

SOURCE CODE: UR/0177/66/000/008/0060/0062

AUTHOR: Khilov, K. L. (Professor); Kolosov, I. A. (Major, Medical corps); Lebedev, V. I. (Lieutenant colonel, Medical corps); Chekirda, I. F. (Senior lieutenant, Medical corps) <sup>4/4</sup>

ORG: none

TITLE: Changes in acceleration sensitivity thresholds under conditions of brief weightlessness

SOURCE: Voyenno-meditsinskiy zhurnal, no. 8, 1966, 60-62

TOPIC TAGS: weightlessness, acceleration biologic effect, space physiology, human physiology, acceleration tolerance, vestibular training, vestibular analyzer

ABSTRACT: A preliminary step of this investigation involved determining a trend in acceleration sensitivity shifts during brief weightlessness (parabolic flights). After determining the sensitivity of the vestibular analyzer, the following method of judging the sensitivity of the horizontal semicircular canals to angular accelerations was employed: A subject was fixed in a Barany chair with head inclined forward 30° and eyes closed. At first, the chair was rotated at a rate of 180° per 20 sec. If a sensation of rotation did not occur, the chair was then rotated through 360° for 20 and 15 sec with a 3—5 min interval. Only positive acceleration sensitivity thresholds were considered and stopping sensations were neglected. The chair was

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UDC: 612.886-06:629.19

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ACC NR: AP6029423

rotated manually by a physician. In a few cases, electronystagmograms were recorded. When a subject sensed acceleration, he informed the physician who fixed the onset time with a stop watch. Background data were gathered during normal horizontal flight. Rotation commenced 5 sec after the beginning of weightlessness. The duration of weightlessness periods was 24—26 sec. Before and after weightlessness, head-pelvis forces of 1.8 and 2.0 G lasting 10—12 sec were experienced. Eleven males aged 23—45 were studied and a total of 24 experiments were run. Of this number, three subjects were exposed to weightlessness once, five were exposed twice during a single flight, and six were exposed from two to six times in the course of 2—3 flights. Analysis of the data from weightlessness runs revealed a shift in the threshold sensitivity of the horizontal semicircular canals to angular accelerations. In every case there was an increase in the duration of the rotational time necessary to obtain a threshold sensation which indicated decreased excitability of canal receptor formations. In 4 subjects, rotation sensation occurred at the 15th and 16th sec at a rate of 180° per 20 sec in horizontal flight; at the same rate during weightlessness no threshold sensation was observed. In one subject, a rate of 360° per 20 sec brought on a rotational sensation after 12 sec while during weightlessness, no sensation occurred. In the remaining subjects, the time necessary to induce a manifestation of rotational sensation during weightlessness was increased by 3—11 sec compared to control data taken during horizontal flight. The average elapsed time necessary to evoke threshold rotational sensation increased by 1.7 compared with average background (horizontal flight) values. It was concluded that brief weightlessness following positive accelerations leads to an increase in acceleration sensitivity thresholds. These increases are apparently due to the elimination of the

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L 43979-66

ACC NR: AP6029423

activating influence of otoliths on sensory reactions of the semicircular canals  
as a result of a "loss" of otolith weight. [CD]

SUB CODE: 06/ SUBM DATE: none/ ATD PRESS: 507/

Card 3/3 ULR

KHILOV, Yu.D., nauchnyy sotrudnik

Remote patrol rafting method on rivers in Krasnoyarsk  
Territory. Trudy VSNIPILesdrev no.9:52-59 '64.

(MIRA 18:11)

KHILOV, Yu.D., nauchnyy sotrudnik

Improving the original free floating drive on the rivers  
of Krasnoyarsk Territory. Trudy VSNIPILesdrev no.7:  
27-35 '63. (MIRA 17:2)

1. Vostochno-Sibirskiy nauchno-issledovatel'skiy i  
proyektnyy institut lesnoy i derevoobrabatyvayushchey  
promyshlennosti.

RITTER, K.K.; KHILOV, Yu.D., starshiy nauchnyy sotrudnik

Practices in introducing the remote patrol method for floating timber  
on the Oya River, Angara-Yenisey basin. Trudy VSNIPILesdrev no.5:  
3-10 '62. (MIRA 16:5)

1. Nachal'nik laboratorii lesosplava Vostochno-Sibirskogo nauchno-  
issledovatel'skogo i proyektnogo instituta lesnoy i  
derevoobrabatyvayushchey promyshlennosti (for Ritter). 2. Laboratoriya  
lesosplava Vostochno-Sibirskogo nauchno-issledovatel'skogo i  
proyektnogo instituta lesnoy i derevoobrabatyvayushchey  
promyshlennosti (for Khilov).

(Oya River--Lumber--Transportation)

ACC NR: AP6027246

SOURCE CODE: UR/0109/66/011/008/1528/1530

AUTHOR: Pashin, Yu. N.; Khilov, Yu. K.; Etkin, V. S.

ORG: none

TITLE: Noise in semiconductor diodes under pulsed conditions

SOURCE: Radiotekhnika i elektronika, v. 11, no. 8, 1528-1530

TOPIC TAGS: semiconductor diode, diode noise, SHF

ABSTRACT: An excess (over thermal) noise radiation was discovered during an experimental investigation of the intrinsic noise of diodes operating under pulsed conditions in the SHF band. A negative square pulse (10--20-nsec rise time) was applied to a forward-biased diode. It was found that the excess noise radiation depend on the switching-pulse amplitude, pulse-rise time, diode-base thickness, and frequency. The cause of this excess noise is seen in a short-time avalanche occurring in the diode, a sort of "dynamic breakdown". This explanation of the excess-noise nature is detailed. Orig. art. has: 1 figure and 1 table.

SUB CODE: 09 / SUBM DATE: 10Nov65 / ORIG REF: 006 / OTH REF: C02

Card 1/1

UDC: 621.382.2.018.756

SOV/128-59-10-6/24

18(5)

**AUTHORS:**

Voronova, N.A., Doctor of Technical Sciences, Belyy, N.I., and  
Khil'shleya, Yu.N., Engineers

**TITLE:**

The Use of Oxygen During the Melting of Roll Cast Iron in Reverberating Furnaces

**PERIODICAL:**

Liteynoye proizvodstvo, 1959, Nr 10, pp 21-24 (USSR)

**ABSTRACT:**

The authors present a report on the use of oxygen during the melting of roll cast iron. The melting of cast iron for the casting of chilled sheet rolls and rigid rolls is done in reverberating furnaces. The cast iron, containing 2.8-3.0% C and 0.4-0.5% Si, is treated with magnesium after leaving the furnace. If the melted metal contains 1.0-1.2% Si, the duration of the desiliconizing period in the reverberating furnace amounts to 2-3 hours. More effective for the desiliconizing of cast iron is the use of technically pure oxygen. Reverberating furnaces with a melting charge of 30 tons work on the hard charge with an addition of 5-7 tons of hot cupola metal. The temperature of the metal, when it leaves the furnace is 1,430° C. Oxygen is lead in with a pressure of 12-15 atd through a fire resistant pipe, 100-150 mm of which are

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SOV/128-59-10-6/24

## The Use of Oxygen During the Melting of Roll Cast Iron in Reverberating Furnaces

submerged into the metal, with an angle of  $30^{\circ}$  (Fig.1). Different materials for the change part of the pipe were tested during research. There were three types of graphite pipes, magnesium reinforced tuyeres and tuyeres of two different types of chamot. The magnesium reinforced tuyeres proved to be the most simple and the most accessible ones for the production. Table 1 shows the change of the chemical qualities and the slag, according to the data of several fusions. Table 2 gives the data for the change of the slag quantity during the melting process of fusion Nr 2. The percentage of  $\text{CaO}$  in the slag is adduced, as well as the slag weight in kg. Table 3 gives data concerning the change of oxygen percentage in the metal during the melting process. At present time all the furnaces at the Dnepropetrovsk chugunc-val'tsedelatel'nyy zavod (Dnepropetrovsk Cast Iron Roll Factory) work with oxygen. There are 1 diagram, 3 graphs and 7 tables.

Card 2/2

VORONOVA, N.A., doktor tekhn.nauk; KHIL'SHLEYN, Yu.N., inzh.

Top blowing of cast iron by oxygen in reverberatory furnaces.  
Met. i gornorud. prom. no.2:65-70 Mr-Ap '62. (MIRA 15:11)

1. Institut chernoy metallurgii AN UkrSSR.  
(Cast iron--Metallurgy)

KHIL'SHLEYN, Yu.N.

Smelting cast iron in coke-gas cupolas. Gaz. delo no.3:30-33  
'63. (MIRA 17:8)

1. Dnepropetrovskiy institut chernoy metallurgii.

VORONOVA, N.A.; KHIL'SHLEYN, Yu.N.; MOGILEVTSEV, O.A.; DANILETS, V.N.

Use of natural gas in large cupola furnaces. Lit.proizv. no.11:1-2  
N '62. (MIRA 15:12)

(Cupola furnaces)

KHIL'TOVA, V. Ya.

KHIL'TOVA, V. Ya. "The Geology and Petrology of the Granitoids of the Main Ridge of the Sources of the River Bol'shoy Zelenchuk (north-western Caucasus)." Leningrad Order of Lenin State U imeni A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Geologicomineralogical Science)

So: Knizhnaya Letopis', No. 19, 1956.

BUZIKOV, I.F.; KRYLOV, I.N.; MITROPANOV, F.P.; NIKITINA, L.P.; KHEL'TOVA,  
V. Ya.

Basic characteristics of the development of the Eastern Sayan  
Mountain mobile area. Trudy lab. geol. dokaz. no. 19:117-125' 1/4  
(MIRA 17:8)

NIKITINA, L.P.; KHLE'TOVA, V.Ya.; MITROFANOV, P.P.; MITROV, I.N.

Rejuvenation in the different ages of the Pre-Cambrian rocks  
in the Eastern Sayan Mountains. Izv. Akad. Nauk SSSR, ser. geol. no.19:  
219-228 '64. (MIRA 17:3)

KHILTUKHIN, E.I., aspirant

Cut the losses of working time in production. Tekst.prom. 22 no.4:  
7-9 Ap '62. (MIRA 15:6)

1. Institut ekonomiki AN SSSR.  
(Wool industry--Labor productivity)



DZEVANSKIY, Yu.K.; DODIN, A.L.; KONIKOV, A.Z.; KRASNYI, L.I.;  
 MAN'KOVSKIY, V.K.; MOSHKIN, V.N.; LYATSKIY, V.B.;  
 NIKOL'SKAYA, I.P.; SALOP, L.I.; SALUN, S.A.; RABKIN,  
 M.I.; RAVICH, M.G.; POSPELOV, A.G.; NIKOLAYEV, A.A.;  
 IL'IN, A.V.; BUZIKOV, I.P.; MASLENNIKOV, V.A.; NEYELOV,  
 A.N.; NIKITINA, L.P.; NIKOLAYEV, V.A.[deceased]; OBRUCHEV,  
 S.V.; SAVEL'YEV, A.A.; SEDOVA, I.S.; SUDOVNIKOV, N.G.;  
 KHIL'TOVA, V.Ya.; NAGIBINA, M.S.; SHEYNNMANN, Yu.M.;  
 KUZNETSOV, V.A.; KUZNETSOV, YU.A.; BORUKAYEV, R.A.;  
 LYAPICHEV, G.F.; NALIVKIN, D.V., glav. red.; VERESHCHAGIN,  
 V.N., zam. glav. red.; MENNER, V.V., zam. glav. red.;  
 OVECHKIN, N.K., zam. glav. red.[deceased]; SOKOLOV, B.S.,  
 red.; SHANTSER, Ye.V., red.; MODZALEVSKAYA, Ye.A., red.;  
 CHUGAYEVA, M.N., red.; GROSSGEYM, V.A., red.; KELLER, B.M.,  
 red.; KIPARISOVA, L.D., red.; KOROBEKOV, M.A., red.;  
 KRASNOV, I.I., red.; KRYMGOL'TS, T.Ya., red.; LIBROVICH,  
 L.S., red.; LIKHAREV, B.K., red.; LUPPOV, N.P., red.;  
 NIKIFOROVA, O.I., red.; POLKANOV, A.A., red.[deceased];  
 RENGARTEN, V.P., red.; STEPANOV, D.L., red.;  
 CHERNYSHEVA, N.Ye., red.; SHATSKIY, N.S., red.[deceased];  
 EBERZIN, A.G., red.; SMIRNOVA, Z.A., red.izd-va; GUROVA,  
 O.A., tekhn. red.

[Stratigraphy of the U.S.S.R. in fourteen volumes. Lower  
 Pre-Cambrian] Stratigrafiia SSSR v chetyrnadtsati tomakh.

Nizhnii Dokembrii. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i  
 okhrane nedr. Pt. 1 (Asiatic part of the USSR) 1963. 396p.

LIKHANOV, B.N.; KHAUSTOVA, M.N.; YEROKHINA, A.A.; MARKOV, F.G.; SPIZHARSKIY, T.N.; DODIN, A.L.; KHIL'TOVA, V.Ya.; CHEREPNIN, L.M.; GROMOV, L.V., kand. geol.-mineral. nauk; SHCHERBACHEV, V.D.; SHUTYY, M.Ye.; NEMCHINOV, V.S., akad., red.; NEKRASOV, N.N., red.; PUSTOVALOV, L.V., red.; ZUBKOV, A.I., kand. ekon. nauk, red.; KAVUN, T.K., red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Natural conditions of Krasnoyarsk Territory] Prirodnye uslovia Krasnoyarskogo kraia. Moskva, Izd-vo Akad. nauk SSSR, 1961. 248 p.

(MIRA 14:7)

1. Krasnoyarskaya kompleksnaya ekspeditsiya. 2. Institut geografii AN SSSR (for Likhanov, Khaustova). 3. Pochvennyy institut im. V.V. Dokuchaeva AN SSSR (for Yerokhina). 4. Nauchno-issledovatel'skiy institut geologii Arktiki Ministerstva geologii i okhrany neдр SSSR (for Markov). 5. Vsesoyuznyy geologicheskii institut Ministerstva geologii i okhrany neдр SSSR (for Spizharskiy, Dodin). 6. Laboratoriya geologii dokembriya AN SSSR (for Khil'tova). 7. Krasnoyarskiy pedagogicheskii institut Ministerstva prosveshcheniya RSFSR (for Cherepnin). 8. Sovet po izucheniyu proizvoditel'nykh sil pri Prezidiume AN SSSR (for Gromov, Likhanov, Khaustova, Yerokhina, Shcherbachhev, Shutyy). 9. Chlen-korrespondent AN SSSR (for Nekrasov, Pustovalov)

(Krasnoyarsk Territory--Natural history)

KHEL'TOVA, V.Ya.

Metamorphism of the ~~Biryusa~~ and Darbek series and their absolute age (western part of the Eastern Sayans). Trudy Lab.geol.dokem. no.12:299-313 '61. (MIRA 14:11)

(Sayan Mountains—Rocks, crystalline and metamorphic)  
(Sayan Mountains—Geological age)

ACC NR: AR7000857 SOURCE CODE: UR/0058/66/000/009/E011/E011

AUTHOR: Ivashchenko, Yu. N.; Yeremenko, V. N.; Bogatyrenko, B. B.;  
Khilya, G. P.

TITLE: Temperature dependence of free surface energy of liquid magnesium

SOURCE: Ref. zh. Fizika, Abs. 9E91

REF SOURCE: Sb. Poverkhnostn. yavleniya v rasplavakh i voznikayushchikh iz  
nikh tverd. fazakh. Nal'chik, 1965, 281-286

TOPIC TAGS: temperature dependence, free energy, liquid helium, <sup>liquid metal,</sup> surface  
tension, magnesium/MG-1 magnesium

ABSTRACT: Measurements were made of the surface tension ( $\sigma$ ) of MG-1  
magnesium (99.91%-pure) by the lying-drop method in a purified helium medium.  
The results fulfill the equation  $\sigma_T = 588.4 \pm 1.2 - 0.182 \pm 0.001 (t - 650)$ . The  
critical temperature is evaluated as  $3860 \pm 100^\circ\text{C}$ . A comparison is made of the  
results of previous determinations and it is shown that the most probable value of  
 $\sigma$  at  $700^\circ\text{C}$  is  $580 \text{ mj/cm}^2$ . A. Vertman. [Translation of abstract] [NT]

SUB CODE: 20/

Card 1/1

KHILYAL', M.I., student

Determining the orientation of a general position region  
illustrated by a point on Mohr's circular diagram. Izv. vys.  
ucheb. zav.; mashinostr. no. 10:25-29 '65 (MIRA 19:1)

1. Submitted October 7, 1964.

KHILYA, V.A., inzh.

Detecting damaged semiconductor valves in rectifiers. Energetik  
8 no.6:14-15 Ja '60. (MIRA 13:7)  
(Electric current rectifiers)

BABICHEV, F.S.; KHILYA, V.P.

Cyanine dyes from dihydrooxazine and dihydrothiazine-benzothiazole salts. Zhur.org.khim. 1 no.3:562-570 Mr '65.

(MIRA 18:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.

KHILYAN, P.I., inzh. po normirovaniyu

Mechanical filling of clay mixers. Meftianik 7 no.7:24 JI '62.  
(MIRA 16:3)

1. Nadvornyanskaya kontora razvedochnogo bureniya.  
(Mixing machinery) (Clay)



MARIYENBAKH, L.M., doktor tekhn. nauk; CHERNYI, A.A., inzh.; GRACHEV, V.A. inzh.;  
KURBATSKIY, I.L., inzh.; PAVLENKO, N.S., inzh.; KHILYUK, A.S., inzh.

Gas-fired cupola furnace. Lit. proizv. no.1:12-13 Ja '66.  
(MIRA 19:1)

KURBATSKIY, I.L.; USTINOV, A.I.; CHERNYI, A.A.; MURZIN, V.G.; SOSNOVSKIY,  
Ye.D.; PAVLENKO, N.S.; KHILYUK, A.S.; RUSALKIN, V.A.

Making castings of high strength cast iron. Lit.proizv. no.9:6-9  
S '62. (MIRA 15:11)

(Iron founding)

KHILYUK, F.M., kand. ekon. nauk

Cooperation of the small river fleet with the main routes  
of river and automotive transportation. Rech. transp. 17 no. 6:9-  
13 Je '58. (MIRA 11:7)

(Inland water transportation)  
(Transportation, Automotive)

BAKAYEV, A.A., inzh.; KHILYUK, F.M., kand.ekon.nauk(Kiyev)

Improve the interrelationship between different kinds of transportation in the Ukrainian S.S.R. Zhel.dor.transp. 41 no.6:  
20-25 Je '59. (MIRA 12:9)

(Ukraine--Transportation)

KHILYUK, M. A.

Dissertation: "Geography of the Agriculture of the Kirovogradskaya Oblast, Ukrainian SSR."  
Cand Geog Sci, Kiev State U, Kiev, 1953. Referativnyy Zhurnal--Geologiya, Geografiya, Moscow,  
Jul 54.

SO: SUM No. 356, 25 Jan 1955

KHILZENRAT, A. G., Grad Stud

Dissertation: "A Study of the Conversion of Isobutylene at Temperatures of 20-5000° in the Presence of Boron Fluoride on Various Carriers." Cand Tech Sci, Moscow Order of the Labor Red Banner Petroleum Inst imeni Academician I. M. Academician I. M. Gubkin, 29 Jun 54. (Vechernyaya Moskva, Moscow, 21 Jun 54)

SO: SUM 318, 23 Dec 1954

7  
Formation of benzene homologs and the special role of  
surface in the catalytic transformations of isobutyl-  
ene in the presence of boron trifluoride. V. M. Panchkin  
and A. G. Khl'zenrat. *Proc. Acad. Sci. U.S.S.R., Sect.  
Chem. Ind.* 683-6 (1956) (English translation).—See C.A. 51  
4974a. B.M.R.

5  
4-2-0  
4-2-0  
4E3d

Khil'zenrat, A.G.

USSR/Kinetics - Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18640

Author : Ya.M. Paushkin, A.G. Khil'zenrat.

Inst : Academy of Sciences of USSR.

Title : Formation of Benzene Homologues and Special Part of Surface in Thermo-Catalytic Transformations of Isobutylene in Presence of Boron Fluoride.

Orig Pub : Dokl. AN SSSR, 1956, 109, No 5, 958-961

Abstract : Studied were the catalytic transformation of isobutylene in presence of boron fluoride adsorbed on activated carbon BA' (I), on  $Al_2O_3$  (II), on silicagel (III) or on an aluminosilicate (IV) in a flowing system at 100 to 500° and a volumetric speed of 60 to 65 hours<sup>-1</sup>. Mainly the polymerization of  $C_4H_8$  together with the formation of 15 to 20% saturated products in presence of II, III and IV was observed at 100 to 200°. The reaction did not proceed at 400° in presence of I, but in presence of II the

Card 1/2

- 284 -



KHIMACH, M. A.

"Experimental Investigation of the Thawing of Spherical Ice Particles".  
Tr. Gl. Geofiz. Observ., No 47, pp 44-48, 1954.

Thawing of ice particles in the atmosphere is due to four processes:  
(1) heat transfer from air, (2) condensation of water vapor onto the surface of the particles, (3) transmission of heat from cloud droplets with which the ice particles, coagulate, and (4) radiation.

The experiments on the investigation of the thawing of spherical ice particles were carried out in a fog chamber with the help of a bench aerodynamic tube.

The results found indicate that the main significant factor for thaw is heat transfer from air and release of latent heat of condensation.  
(RZhMekh, No 10, 1955)

SO: Sum No 884, 9 Apr 1956

KHIMACH, M. A. and SHISHKIN, N. S.

"Precipitation From Purely Aqueous Clouds in the Region of Leningrad".  
Trudy Gl. geofiz. observ., No 47, pp 53-56, 1954.

Data of two flights in the region of Leningrad in May August of 1952 for the study of aqueous clouds that gave intense rains is given. Investigations of the cloud systems of thermal fronts indicated according to the temperature distribution the absence of ice crystals. Other investigations of a cloud system of cold fronts also confirmed the possibility of the fall-out of sufficiently intense precipitation from purely aqueous clouds. The size of the rain drops near the earth reached 0.7-0.9 mm in the case of rain intensity of the order of 0.6 mm/hr. Additional investigation of Ns in January 1950 confirms the possibility of fall-out of precipitation of the liquid phase in winter. (RZhGeol, No 9, 1955)

SO: Sum No 884, 9 Apr 1956

KHIMACH, M.A.

Ice deposits from supercooled clouds and fogs. Trudy GGO no.57:44-  
49 '56. (MLRA 10:1)

(Precipitation (Meteorology)) (Ice)

④

KHIMACH, M.A.; SHISHKIN, N.S.

Changes in the microstructure of convective clouds during precipitation. Trudy GGO no.104:25-38 '60.  
(Cloud physics) (MIRA 13:10)

BASHKIROVA, G.M.; KHIMACH, M.A.; SHVARTS, V.T.; SHISHKIN, N.S.

How to bring about winter precipitation by means of Italian  
hail-preventing rockets. Trudy GGO no.126:3-7 '62. (MIRA 15:7)  
(Snow) (Weather control)

GROMOVA, T.N.; KRASIKOV, P.N.; LENSIN, V.T.; NIKANDROVA, G.T.; KHIMACH,  
M.A.; SHISHKIN, N.S.

Experiments in subjecting supercooled clouds to the action of  
aqueous solutions of lead iodide. Trudy GGO no.126:16-21  
'62.

(MIRA 15:7)

(Weather control) (Lead iodide)

43061

S/531/62/000/126/002/004  
I053/I 253

3.5910

AUTHORS: Gromova, T.N., Krasikov, P.N., Lenshin, V.T., Nikandrova, G.T., Khimach, M.A., Shishkin, N.S.

TITLE: Experiments on the application of  $PbI_2$  in water solution to supercooled clouds

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy. no. 126, 1962. Voprosy fiziki oblakov i aktivnykh vozdystviy, 1c-21

TEXT: Clouds or mists are treated with a combustible water solution of  $PbI_2$  sprayed out of an air-plane at a pressure of 3-4 atmosphere through sprayers comprising 32 nozzles 1.2 mm in diameter. The effect has been observed from an altitude of 0.5-1.0 km over the upper cloud limit. In cumulus clouds with a vertical capacity of 2 km and over, precipitations have been obtained below  $-7^{\circ}C$ . Compact strato-cumulus clouds with a capacity of 200-460 m were dissipated below  $-15^{\circ}C$ . At  $\sim -29^{\circ}C$ , both the  $PbI_2$  solution and the water itself produce cloud dissipation. There is 1 table.

Card 1/1



KHIMAKOV, V. I.

Expansion of the surface transportation in connection with the expansion of city limits of Moscow. Ger. khoz. Mosk. 34 no.11:5-6 N '60.  
(MIRA 13:11)

1. Zamestitel' nachal'nika Upravleniya passazhirskego transporta.  
(Moscow--Transit systems)

KORDONSKAYA, Revekka Borisovna; PAVLOV, Rev Petrovich; BRYANTSEVA, V.P.,  
inzh., ved. red.; KHIMCHENKO, I.V., kand. tekhn. nauk, red.;  
SOROKINA, T.M., tekhn. red.

[Ultrasonic testing of large cylindrical forgings with  
various metallurgical defects] Ul'trazvukovoi kontrol' krup-  
nykh tsilindricheskikh pokovok s razlichnymi metallurgicheskimi  
porokami. Moskva, Filial Vses. in-ta nauchn.i tekhn. informa-  
tsii, 1958. 10 p. (Peredovoi nauchno-tekhnicheskii i proizvod-  
stvennyi opyt. Tema 21. No. M-58-182/8) (MIRA 16:3)  
(Ultrasonic testing)  
(Steel forgings--Defects)

KHIMCHENKO, I.Ya., brigadir

Our brigade will justify its honorary title. Avt.dor. 25 no.5:7-8  
My '62. (MIRA 15:6)

(Kirghizistan--Road construction)

KHIMCHENKO, N.V., kandidat tekhnicheskikh nauk; YESILVSKIY, V.P.,  
~~ingener~~

Multiple defectoscopy fo compressor pins. Sbor.st. NIKKHIMMASH  
no.14:109-116 '53. (MIRA 7:11)  
(Compressors) (Quality control)

*KHIMCHENKO, N.V.,*

AKULOV, N.S., professor; KHIMCHENKO, N.V., kandidat tekhnicheskikh nauk

Effect of temperature on the corrosion of steel and cast iron by  
acidic substances. Sbor.st. NIIKHIMWASH no.14:117-123 '53.

(MLRA 7:11)

1. Deystvitel'nyy khlen Akademii nauk BSSR (for Akulov)  
(Steel--Corrosion) (Cast iron--Corrosion)

Ultrasonic Testing of the Size of Graphite Inclusions in  
Iron. N. V. Kuznetsov and L. A. Gerasimova. *Metallurgiya*,  
Moscow, 1988, 21, 12, 145-146. In Russian. 10 refs.  
replacement of metallography by ~~ultrasonic~~ ~~ultrasonic~~ the  
determination of the size of graphite inclusions in  
cast iron is described. The apparatus and method  
described is capable of determining the size of  
graphite inclusions in the range of 0.15 to 5.0 mm. In  
the range of graphite inclusions sizes that can be  
determined, the methods used are compared. The  
conditions are discussed. Results of the  
structural calculations from which the  
method can be used. The method is being used  
metallographic results compared with  
the ultrasonic method described. The  
best active test procedure for  
graphite inclusions.

Wesley, 2nd Nov 1900

SHCHEPETOV, Viktor Nikolayevich, kandidat tekhnicheskikh nauk; SHTEYNBOK, G.Yu., inzhener, vedushchiy redaktor; ~~KHIMICHENKO, N.Y.~~, kandidat khimicheskikh nauk, redaktor; SIMAKOV, A.T., tekhnicheskiiy redaktor

[Ultrasonic instrument for determining the quality of glueing in large insulators] Ul'trazvukovoi pribor dlia opredeleniia kachestva skleiki krupnogabaritnykh izoliatorov. Moskva, Akad.nauk SSSR, 1956. 14 p. (Pribory i stendy. Tema 3, no.P-56-510) (MLRA 10:10)  
(Electric insulators and insulation)  
(Ultrasonic waves--Industrial application)

*Khimchenko, N.V.*

TITARENKO, Ivan Ivanovich; YELICHIN, Pavel Mikhaylovich; IDAL'TSOV, A.N.,  
glavnyy redaktor; KHIMCHENKO, N.V., kandidat tekhnicheskikh nauk,  
redaktor

[Powerful sharp-focus X-ray tube with rotating anode. Magnetic  
scales for determining ferrite in austenite steel] Moshchnaya  
ostrofokusnaya rentgenovskaya trubka s vrashchayushchimsya  
anodom. Magnitnye vesy dlia opredeleniya ferrita v austenitnykh  
stalakh. Tema 3, no. P-56-451. Moskva, 1956. 17 p. (MLRA 10:4)

1. Akademiya nauk SSSR. Institut tekhniko-ekonomicheskoy  
informatsii.

(X rays--Apparatus and supplies) (Ferrite(Steel constituent))



*KHIMICHENKO, N. V.*

BLOKHIN, Mikhail Arnol'dovich, doktor fiziko-matematicheskikh nauk; ~~KHIMICHENKO~~  
~~N. V.~~ kandidat tekhnicheskikh nauk, redaktor; UDAL'TSOV, A.N., glavnyy  
redaktor; SHTEYNBOK, G.Yu., inzhener, vedushchiy redaktor.

[X-ray spectrum apparatus) Rentgeno-spektral'naya apparatura. Tema 3.  
no. P-56-453. Moskva, Akad.nauk SSSR. 1956. 28 p. (MIRA 10:5)  
(X-ray spectroscopy)

*KHIMCHENKO, N.V.*

LOZINSKIY, Mikhail Grigor'yevich, doktor tekhnicheskikh nauk; SHFEBNOK,  
G.Yu., inzhener, vedushchiy redaktor; KHIMCHENKO, N.V., kandidat  
khimicheskikh nauk, redaktor

[New apparatus for studying microstructure and properties of metals  
and alloys at high temperatures.] Novye pribory dlia issledovaniia  
mikrostruktury i svoistv metalloy i splavov pri vysokikh tempera-  
turakh. Tema 3, no.P-56-425. Moskva, Gostekhnika SSSR, 1956. 49 p.  
(Metals at high temperature) (MLRA 10:7)  
(Metallography)

AID P - 5207

Subject : USSR/Engineering

Card 1/2 Pub. 107-a - 6/13

Authors : Khimchenko, N. V., Kand. of Tech. Sci., and V. P. ~~Yevljevskiy~~, Eng. (NIIKHIMMASH)

Title : Ultrasonic control of welded seams

Periodical : Svar. proizv., 7, 18-22, J1 1956

Abstract : The authors present this method of inspection of welded seams as the most effective for detection of inner microscopic defects because the ultrasonic waves penetrate into metal deeper than X-rays or even Gamma-rays. They describe the technique of detection and the equipment used in ultrasonic control. Four photos, 2 tables, 8 drawings and 1 graph.

Institutions: Leningrad Electrotechnical Institute; Scientific Research Institute of Chemical Machine-Building (NIIKHIMMASH); All-Union Scientific Research Institute of Aviation

AID P - 5207

Svar. proizv., 7, 18-22, J1 1956

Card 2/2 Pub. 107-a - 6/13

Materials (VIAM), Moscow Higher Technical School (MVTU) im. Bauman, and the Scientific Research Institute of Bridges (NII mostov).

Submitted : No date

KHIMCHENKO, N. V.

KHIMCHENKO, N.V., kand.tekhn.nauk.

Ultrasonic defectoscopy of cast iron. Lit.proizv. no.8:15-18

Ag '57.

(MIRA 10:10)

(Cast iron--Testing)

(Ultrasonic waves--Industrial applications)

*Khimchenko, N.V.*  
AUTHORS: Khimchenko, N. V., Candidate of Technical Sciences 64-8-9/19  
Yesilevskiy, V. P.

TITLE: Application of Ultrasonic Calipers Under Industrial Conditions  
(Primeneniye ul'trazvukovykh tolshchinomerov v promyshlennyykh usloviyakh).

PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 8, pp. 39-41 (USSR)

ABSTRACT: The devices used for the ultra sonic thickness gauging: the defectoscope YД -7 and the thickness gauge Y3T -3 (both devices are constructed by TsNIIImash) are described and their applications in the industry are shown. Both are based upon the ultra sonic impulse oscillations with a frequency of 2,5 mc and give the possibility of measuring flat and cylindrical products with a thickness of 8-10 mm up to 2 m. For thinner parts the thickness gauges of the resonance type are used. The measuring preciseness amounts to 2,0 - 2,5% at neatly worked surfaces and to -5% at unworked (rolled stock). The ultra sonic thickness gauge and the defectoscope are fitted with an ultra sonic time normal (standard). The time normal consists of a piezo element, a cylinder, a piston, and a scale. The cylinder is filled with liquid. The working principle of the devices is the following: a high-frequency

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Application of Ultrasonic Calipers Under Industrial Conditions 64-8-9/19

generator generates short high-frequency alternating voltage impulses which excite the piezoelectric plates of the sender and of the time normal which on their part transform these oscillations into elastic oscillations of the same frequency. With the emission of the initial impulse into the product the control generator which controls the ray of the electron-beam tube begins to work. The impulses are reflected at the "bottom" of the product and are again transformed into electric oscillations by the piezoplate. The latter are intensified in a multiplier and reach after the detection the vertical-deflecting plates of the electron-beam tube. In this case a "peak" occurs on the screen of the tube (as the result of the deviation of the electron ray). Simultaneously the "peak" produced by the reflexion of the ultra sonic from the piston of the time normal is observed. The position of this "peak" on the screen depends on the position of the piston. The latter can be determined by means of the scale (in millimeters or microseconds). In changing the position of the piston both peaks can be brought to agreeing and the thickness of the product in millimeters can be read at the device scale or the time of the ultra sonic passage in the metal in microseconds. Both devices have a scale graduation which is adjusted to

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Application of Ultrasonic Calipers Under Industrial Conditions 64-8-9/19

steel products. In the case of other materials the measuring result has to be multiplied with a coefficient K. The measuring is obtained from the formula  $S = V\tau$  mm, V is the velocity with which the ultra sonic propagates in the con-material in question in mm/ $\mu$  sec and  $\tau$  is the reading of the device. In the case of tubes applies the formula

$$y = R - \sqrt{R^2 - \frac{a^2}{4}},$$

R is the radius of the tube or of the fitting and a is the width of the measuring place. The real thickness of the product is computed from

$$S = x + y, \quad x \text{ is the reading of the thickness}$$

gauge in mm.

Some examples for the application of the devices in the industry are given. In the measuring of elements of the Flansch compounds the fact is important that the measuring is possible without a dismounting. Also the possibility of measuring double knees of riflet tubes of heating furnaces is of great practical importance.

Card 3/4

Application of Ultrasonic Calipers Under Industrial Conditions 64-8-9/19

There are 6 figures, 3 tables.

AVAILABLE: Library of Congress

Card 4/4



KHIMCHENKO, N.V., kand. khim. nauk; YESILEVSKIY, V.P.

Using ultrasonic thickness gauges under industrial conditions.  
Khim. prom. no.8:487-489 D '57. (MIRA 11:2)  
(Ultrasonic waves--Industrial applications)  
(Gauges)

7. H I M I L A E N A U I V V  
KHIMCHENKO, N.V.; YESILEVSKIY, V.P.; TSECHAL', V.A.

Ultrasonic defectoscopy of welded joints made by automatic welding with  
flux, Avtom. svar, 10 no.2:70-78 Mr-Ap '57. (MLRA 10:6)

1. Nauchno-issledovatel'skiy institut khimicheskogo mashinostroyeniya  
i Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.  
Patona Akademii nauk USSR.

(Electric welding--Quality control)  
(Ultrasonic waves--Industrial applications)

KHIMCHENKO, N.V., kand.tekhn.nauk; YESILEVSKIY, V.P., inzh.

Over-all defectoscopy of large-size high-pressure equipment.  
Sbor.st. NIIKHIMMASH no.23:111-123 '57. (MIRA 12:5)  
(Chemical apparatus--Testing)

24.1800

67981

SOV/112-59-21-45028

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 21, p 193  
(USSR)

AUTHORS: Khimchenko, N.V. Yesilevskiy, V.P.

TITLE: Ultrasonic Thickness Measurement<sup>14</sup>

PERIODICAL: Sb. statey. Vses. n-i. i konstrukt. in-ta khim. mashinostr., 1957,  
Nr 23, pp 124-133

ABSTRACT: An experience in the use of ultrasonic thickness gauges and flaw detectors, supplied with an ultrasonic time standard for checking the thickness of parts and units of oil and chemical equipment is described. A brief characteristic of the ultrasonic thickness gauge UZT-3 and of the ultrasonic flaw detector UZD-7 designed by TsNIIT Mash is given: the principle of operation of the ultrasonic time standard is investigated. A correction to the measurement data for a decrease in thickness of cylindric pieces (pipes, columns) in the place of checking, on account of a flat platform for a piezo-feeler, is considered. An analysis of the results of measurements of the wall thickness by means of ultrasonic instruments is given for casings of high pressure apparatuses, elements of flange connections,

Card 1/2

30V/137-59-4-8899

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, pp 221 - 222 (USSR)

AUTHOR: Khimchenko, N.V.

TITLE: A Color Control Method

PERIODICAL: Sb. statey, Vses. n.-i. i konstrukt. in-t khim. mashinostr., 1957,  
Vol 23, pp 134 - 138

ABSTRACT: The author developed an advanced technology of controlling surface defects of work pieces by the color method. On the surface of parts 4 - 5 layers of a colored liquid are applied; the liquid consists of 80% kerosene, 15% transformer oil, 5% turpentine and 10 g "Sudan 3" color. Under the effect of capillary forces the liquid penetrates into the defects of the work piece. After 10 to 15 minutes the surface of the parts is washed with 5% aqueous solution of soda ash and rubbed. A thin layer of kaolin, suspended in water (600 - 700 g/l of water), is then applied with the use of a pulverizer. After drying the color coming out of the defects dyes the kaolin red which is well noticeable against the white background. The parts are checked twice, i.e. 3 - 5 minutes and 20 - 30 minutes after drying. During the first control

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A Color Control Method

SOV/137-59-4-8899

large defects such as cracks and their configuration are identified; the second control serves to determine smaller defects. The sensitivity of the method is not below that of the luminescent and approached that of the magnetic method. Cracks of 0.03 - 0.04 mm depth and 0.01 mm opening can be well detected. It is stressed that in Al weld-joint control the color method yields more objective results than etching of the polished surface with NaOH solution. The method was successfully tested under industrial conditions. ✓

Yu.L.

Card 2/2

*Khimchenko, N.V.*AUTHOR: Khimchenko, N.V.

32-7-12/49

TITLE: The Color Method in Defectoscopy (Tsvetnoy metod defektoskopii)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 7, pp. 803-806 (USSR)

ABSTRACT: For the determination of defects on the surface of products made of ferromagnetic substances the magnet-defectoscopy method is used. For non-magnetic substances magnetic luminescent and color methods are used. The latter consists of the following. The surface of the substance to be examined is covered with a layer of a colored liquid (80 % petroleum, 15 % transformer oil, 5 % turpentine). This is repeated 3 to 4 times and every time the layer is left upon the surface for 10 to 15 minutes. Then the surface is washed with 5 % calcium soda; it is left to dry; then it is covered with a thin layer of caolin. After a complete drying of this caolin layer in warm air, the caolin layer assumes a red color showing the configurations of the defects. A comparison between the color method, the luminescent method, and the magnetic method shows that all three are highly sensitive and therefore can be used as a countercheck. The color method is used for the control of autogeneous welding and is preferred to the method of sodium oxide etching. Therefore it was concluded that the adaption of the color method in the examination of non-magnetic materials, autogeneous welding,

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The Color Method in Defectoscopy.

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of stainless steel, aluminum, and others is most recommendable.

ASSOCIATION: All-Union Scientific Research Institute for the Construction of  
Chemical Machinery and Engineering (Vsesoyuznyy nauchno-  
issledovatel'skiy i konstruktorskiy institut khimicheskogo  
mashinostroyeniya)

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KHIMCHENKO, Nikolay Vasil'yevich, kand. tekhn. nauk; TUCHKOVA, L.K.,  
inzh., ved. red.; MATVEYEV, A.S., kand. tekhn. nauk, red.;  
PONOMAREV, V.A., takhn. red.

[Ultrasonic flaw detection] Ul'trazvukovaya defektoskopiya. Mo-  
skva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 60 p.  
(Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 21.  
No.M-58-219/13) (MIRA 16:2)  
(Ultrasonic testing)

VAYNSHTEYN, Boris Konstantinovich, doktor fiz.-mat. nauk; PINSKER, Zinovy Grigor'yevich, doktor khim. nauk; LYUSTIBERG, V.F., inzh., ved. red.; KHIMCHENKO, N.V., kand.tekhn. nauk; SOBOKIN, T.M., tekhn. red.

[Electron diffraction camera for structural studies]Elektro-nograf dlia strukturnykh issledovani. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 13 p. (Peredovoi nauchno-tekhn. i proizvodstvennyi opyt. Tema 33. No.P-58-100/5)

(MIRA 16:3)

(Electron diffraction apparatus)

PROTOPOPOV, Sergey Petrovich; LYUSTIBERG, V.F., inzh., ved. red.;  
KHIMCHENKO, N.V., kand. tekhn. nauk, red.; SOROKINA, T.M.,  
tekhn. red.

[Electronic device for determining residual austenite in  
steel]Elektronnyi pribor dlia opredelenia ostatocnogo  
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tekhnicheskii i proizvodstvennyi opyt. Tema 33. No.P58-92/4)  
(MIRA 16:3)

(Steel--Analysis) (Electronic measurements)  
(Austenite)

SEMENTOVSKIY, Yuriy Vladimirovich; LYUSTIBERG, V.F., inzh., ved. red.;  
KHIMCHENKO, N.V., kand. tekhn. nauk, red.; SOROKINA, T.M.,  
tekhn. red.

[Universal rotor-integrator for the quantitative geometrical  
analysis of rocks and materials] Universal'nyi rotor-integrator  
dlya kolichestvennogo geometricheskogo analiza gornyykh porod i  
materialov. Moskva, Filial Vses.in-ta nauchn. i tekhn. infor-  
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vodstvennyi opyt. Tema 33. No.P-58-139/7) (MIRA 16:3)  
(Integrators) (Mineralogy, Determinative)

KNIMCHENKO, N.V.

25(6) PHASE I BOOK EXPLOITATION SOV/2555  
 Nauchno-tekhnicheskoye obshchestvo priroboostroitel'noy promyshlennosti. Ukrainskoye respublikanskoye pravleniye  
 Novyye metody kontrolya i defektoskopii v mashinostroyenii i priroboostroitel'nykh mashinakh (Novyye metody kontrolya i defektoskopii v mashinostroyenii i priroboostroitel'nykh mashinakh) [New Methods of Inspection and Flaw Detection in the Machinery and Instrument-Making Industries] (Reports of the Conference Held at Kiev, 1956) Kiev, Gosizdat USSR, 1958. 264 p. 4,700 copies printed.  
 Sponsoring Agency: Akademiya nauk USSR.  
 Ed.: A. Aselin; Tech. Ed.: P. Patsalynuk; Editorial Board: I.I. Greben', B.D. Grozin, A.Z. Zmudskiy, G.M. Sarin (Resp. Ed.), I.D. Faynman (Dep. Ed.), and A.A. Shishlovskiy.  
 PURPOSE: This book is intended for engineers, scientific workers, and technicians dealing with problems of inspection and flaw detection.  
 COVERAGE: This is a collection of scientific papers presented at a  
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conference sponsored by the Academy of Sciences, USSR, and the Nauchno-tekhnicheskoye obshchestvo priroboostroitel'noy promyshlennosti, Ukrainskoye pravleniye (Ukrainian Branch, Scientific and Technical Society of the Instrument-Making Industry). The papers deal with modern methods of inspection and flaw detection used in the machinery- and instrument-manufacturing industries. The subjects discussed include the use of electron microscopes in the investigation of metal surfaces; X-ray, gamma-ray, luminescence, magnetic, and ultrasonic methods of flaw detection; use of radioactive isotopes; X-ray diffraction methods of metal analysis; and the use of interferometers for measuring length and thickness, and determining the coefficient of linear thermal expansion. No personalities are mentioned. References follow several of the papers.

Gurevich, A.E., Engineer, Leningrad NII of Bridges. Ultrasonic Detection of Flaws in Fillet Welds 143  
 Kulchakov, N.V., V.P. Yastilevskiy, Engineer, and V.A. Tschall'. Ultrasonic Detection of Flaws in Electro-slag Welds 149  
 Trushchenko, A.A., Engineer, Kiev Electric Welding Institute Isani Ye.O. Paton. Testing Welds for Permeability 151  
 Rumukova, M.F., Doctor of Technical Sciences, Professor Leningrad NII Isani Mendeleev. Ways of Improving the Accuracy of the Interference Method of Measuring Length 173  
 Kostyashin, M.Z., and A.A. Shishlovskiy, Kiev State University Isani Shishlovskiy. Use of NII Microinterferometers for Determining Thicknesses and Refractive Indices 180  
 Volkova, Ye. A., Candidate of Technical Sciences, Leningrad NII Isani Mendeleev. Interference Method of Measuring the Coefficient of Linear Thermal Expansion of Solid Bodies 188

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BOROVSKIY, Igor' Borisovich; SKOTNIKOV, Sergey Aleksandrovich;  
LYUSTIBERG, V.F., inzh., ved. red.; KHIMCHENKO, N.V.,  
kand. tekhn.nauk, red.; SOROKINA, T.M., tekhn. red.

[Apparatus for the spectrum determination of gases in metal]  
Apparatura dlia spektral'nogo opredeleniia gazov v metallakh.  
Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii,  
1958. 22 p. (Peredovoi nauchno-tekhnicheskii i proizvodstven-  
nyi opyt. Tema 33. No.P-58-86/3) (MIRA 16:3)  
(Gases in metals) (Spectrum analysis)

KHIMCHENKO, N.V., kand.tekhn.nauk

Use of physical methods for detecting flaws in welds. Trudy  
NIKHIMMASH no.26:113-121 '58. (MIRA 13:7)  
(Metals--Welding) (Welding--Testing)

KHIMCHENKO, N.V., cand.techn.nauk

Advanced methods of control in the manufacture of chemical machinery.  
Khim.mash. no.1:41-44 Ja '59. (MIRA 12:7)  
(Chemical engineering--Equipment and supplies)



28 (5)

AUTHORS:

Khimchenko, N. V., Prikhod'ko, V. N. SOV/32-25-7-16/50

TITLE:

Investigation of the Sensitiveness of Ultrasonic Control by Means of Inclined Prismatic Feeler Gauges (Issledovaniye chuvstvitel'nosti ul'trazvukovogo kontrolya pri pomoshchi naklonnykh prizmaticheskikh shchupov)

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, pp 813 - 815 (USSR)

ABSTRACT:

Investigations regarding the change of oscillograms in control processes of ready-made articles by means of prismatic feeler gauges (FG), allowed an approximate estimation of the shape and the dimensions of defects in material and of their depths. In connection with previous work (Ref 1) the sensitiveness of the ultrasonic control in the present case was examined by means of crack detectors UZD-7 and UZD-7N of the system TsNIITMASH under application of inclined prismatic (FG). The appliances were provided with (FG) which caused a ray angle of  $\alpha = 30, 40$  and  $50^\circ$ . For each (FG) standard samples were produced of steel 20 into which defects of different sizes and depths were bored artificially. The control took place at frequencies of 2.5 megacycles and different amplification coef-

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Investigation of the Sensitiveness of Ultrasonic  
Control by Means of Inclined Prismatic Feeler Gauges

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ficients and impulse capacities of the appliance. The obtained diagrams show that an increased depth of the position of the fault at first caused an increase of the amplitude of the signal and then decreased at depths below 12 - 15 mm, independent of the size and the area of the defect. Function curves of the amplitude of the signal indicating the depth of the defect, in general show a clear maximum with defects not so deeply situated. At depths of less than 10 - 15 mm the control sensitiveness of (FG) is lower with angles of 30 and 40° than it is with 50°. For this reason it is recommended to use (FG) with sound angles of 50° for the control of thin-walled objects at surface layers of metals. There are 4 figures and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut  
khimicheskogo mashinostroyeniya (All-Union Scientific Research  
and Design Institute for Chemical Machine Construction)

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28 (5)

AUTHORS: Khimchenko, N. V., Prikhod'ko, V. N. SOV/32-25-7-23/50

TITLE: Ultrasonic Control of the Size of Grains in Austenite Steel  
(Ul'trazvukovoy kontrol' velichiny zerna v austenitnoy stali)

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, pp 836 - 839  
(USSR)

ABSTRACT: As is shown by the given data (Refs 1-3), higher sound frequencies than those of the domestic ultrasonic crack detectors (UZD-7N, UZD-12T, 86-IM-2, V4-7I and others) have to be used for ultrasonic control of the size of grains in steels, of heavy nonferrous metals and alloys. Therefore, a special appliance was designed on the basis of the crack detector 86-IM-2, an ultrasonic structure analyzer with a wide range of frequencies of ultrasonics (from 0.7-11.2 megacycles). The radio engineers V. N. Maragayev and N. N. Materanskiy collaborated in this work. The analyzer is designed according to the impulse scheme and allows controls according to reflex radiation and irradiation. The carried out alterations of the crack detector 86-IM-2 are described by means of graphs of a high frequency generator with an absorption lamp and an amplifier. The possibility of control by means of the designed appliance was tested with

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Ultrasonic Control of the Size of Grains in Austenite Steel SOV/32-25-7-23/50

stainless austenite steel 1Kh18N9 (Table). The results obtained show that the sizes of grains can be determined in a range of 0.03 - 0.18 mm which corresponds to a change of the size of grain from Nr 1 to Nr 7 according to Gost 5639-51. There are 3 figures, 1 table, and 5 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya (All-Union Scientific Research and Design Institute for Chemical Machine Construction)

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